The Heliospheric Current Sheet: Ulysses observations

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From launch in October, 1990 until its arrival at Jupiter in February, 1992, Ulysses has crossed the heliospheric sector boundary numerous times. As Ulysses climbed out of the ecliptic plane the heliospheric current sheet continued to be seen until its disappearance at a latitude of 30 degrees south and a distance of 4.7 AU. Recently, a study of sector boundaries and their associated structures, the heliospheric current sheet and plasma sheet, has been completed using ISEE-3/ICE data at 1 AU. Building upon this work and using combined magnetic field and plasma data, we report on the radial evolution of sector boundaries in the ecliptic plane from 1 to 5 AU and their evolution with increasing heliographic latitude.

- 1. 1994 Spring Meeting
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- 4. SH
- 5. (a) N/A
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- 6. N/A
- 7. 25% at ESLAB symposium
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- 11. No